



Work Order ID 73796-2

Thursday, September 15, 2011 11:05:19 AM

Item ID:

D3183-045

Revision ID:

Item Name:

Bearing Assembly

Start Date:

Required Date: 9/19/2011

9/15/2011

Start Qty: 60.00

Req'd Qty: 60.00





Accept



Setup Start



Stop



Cust Item ID:

Customer:

Reference:

Process Plan: Approvals:

QC:

MF

Date: $\sqrt{-09-15}$ Tooling:

Date:

Date: Date: Run Start

Stop

Reject

Sequence ID/ Work Center ID

Operation Description SPC (Y/N): Set Up/

Run Hours

Tool ID

Tool # Plan Accept Qty Code

Reject Qty

Insp. Number Stamp

Draw Nbr

Revision Nbr

D3183 Rev C1

100

Hardinge

Hardinge CNC Lathe Small

Hardinge CNC LATHE SMALL

Memo

0.00 Turn D3183-9 Cap as per Folio FA388 Deburr

0.00

110

QC2- Inspect parts off machine FAI/FAIB

0.00

80

Quality Control

Memo

QC8- Inspect parts - second check

Memo

0.00

11/9/16

120

0.00

0.00

orl 11/09/16

86 6

Quality Control

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | | | | |
|---------|------|------------------------|----------|-------|-----|-------------------------------------|--------------------------|--|--|--|
| DATE | STEP | PROCEDURE CHANGE | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | (音報作) | | | | | | | | |
| Part No | : | PAR #: Fault Category: | NCR: Yes | No DQ | A: | Date: | | | | |

| Part No: _ | | PAR #: | Fault Category: | NCR: Yes No DQA: | Date: |
|------------|-------------|--------|--------------------|------------------|-------|
| | Resolution: | | Disposition: | QA: N/C Closed: | Date: |
| NCR: | | | WORK ORDER NON-CON | IFORMANCE (NCR) | |

| | STEP | Description of NC | | Corrective Action Section 8 | 3 | Verification | Annroval | Approval QC Inspector |
|------|------|-------------------|----------------------|------------------------------|----------------|--------------|-----------------------|--------------------------|
| DATE | | Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Section C | Approval Chief Eng | |
| | | | | | | | | |
| | | A Comment | | | | | | |
| | | 1364 | | | | | _ | |
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NOTE: Date & initial all entries

Work Order ID 73796

Thursday, September 15, 2011 11:05:19 AM



Page 2

Item ID:

D3183-045

Accept

Setup Start

Stop



Revision ID:

Item Name:

Bearing Assembly

Start Date: 9/15/2011 Required Date: 9/19/2011

Start Qty: 60.00

Req'd Qty: 60.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

Small Fab

Small Fab

Operation Description

Small Fab

Set Up/ Run Hours

0.00

Tool ID

Tool # Plan

Oty Code

Accept Reject Qty

Reject Number

Insp. Stamp

Memo

0.00

Press D3183-5 Bearing into D3183-9 Cap as per Dwg D3183.

140

QC

Quality Control

QC5- Inspect part completeness to step on W/O

150

Packaging

Packaging

Identify as per dwg & Stock Location



0.00

Memo

Memo

0.00

Dart Aerospace Ltd

| | | LICE AND LAND L | | | | | | | | | | |
|-------------|------|---|-----------------------------|------------------------------|----------------|---------------|--------------------------|-------------------------------------|--------------------------|--|--|--|
| W/O: | | AL SERIE | WO | RK ORDER CHANGE | S | | , | | | | | |
| DATE | STEP | PRO | PROCEDURE CHANGE | | | | | Approval Chief Eng / Prod Mgr | Approval QC Inspector | | | |
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| | | | | | | | | | | | | |
| Part No: | | PAR #: | PAR #: Fault Category: | | | | NCR: Yes No DQA: Date: _ | | | | | |
| Resolution: | | | Disposition | : | QA: N/C CI | osed: | | Date: | | | | |
| NCR: | | | WORK ORDE | R NON-CONFORMA | NCE (NCF | R) | | | | | | |
| DATE | CTED | Description of NC | Corrective Action Section B | | | Verific | ation | tion Approval | Approval | | | |
| DATE | SIEP | STEP Section A | Initial Chief Eng | Action Description Chief Eng | Sign 8 Date | 1 & Section C | | Chief Eng | QC Inspector | | | |
| | | | | | | | | | | | | |
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| | 1 | Hall II. | | | | | | | | | | |
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NOTE: Date & initial all entries

Work Order ID 73796

Thursday, September 15, 2011 11:05:19 AM



Page 3

Item ID:

D3183-045

Accept

Setup Start

Stop



Revision ID:

Item Name:

Bearing Assembly

Start Date: 9/15/2011 Required Date: 9/19/2011

Start Oty: 60.00

Req'd Qty: 60.00

Operation

Description



Cust Item ID:

Customer:

Reference:

Process Plan: Approvals:

Date:

Tooling:

Date:

Run Start

QC:

Date:

QC21- Final Inspection - Work Order Release

SPC (Y/N):

Set Up/

Date:

Stop

Sequence ID/

Work Center ID

160

Memo

Run Hours

0.00

0.00

Tool ID

Tool # Plan

Code

Accept Qty

Reject Reject Number Qty

Insp. Stamp

Quality Control

MF 11-09-19

Picklist Print

Thursday, September 15, 2011 11:05:16 AM

Work Order ID: 73796

D3183-045

Parent Item Name:

Bearing Assembly



Start Date: 9/15/2011

Required Date: 9/19/2011

Start Qty: 60.00

Required Qty: 60.00

Comments:

Parent Item:

IPP A 04.02.18 New issue KJ/DS

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D3183-5 Bearing | | Manufactured | No | | | 110 | Each | 66.0000 | | 60 | 11/09 | /19 | |
| | | | | Location | | Loc | Qty | Loc Code | | | | | |
| | | | | ST235B | | | 50 | | 5 | | | | |
| | | | | | 71854 | | 50 | | | 50 | | | |
| | | | | ST236 | | | 16 | | | | | | |
| | | | | | 67529 | | 1 | | | | | | |
| | | | | | 68933 | | 4 | | | 4 | | | |
| | | | | | 72295 | | 11 | | | d | | | |
| MDELRINR1.000 | | Purchased | No | | | 130 | f | 40.3090 | 0.0333 | 2.10315 | 8 | | |
| Delrin Round Bar 1" | | | | | | | | | | 12 | 11) | 2116 | |
| | | | | Location | | Loc | Qty | Loc Code | | | | | |
| | | | | MAT055 | | 4 | 0.309 | | | | | | |

117985 0.407 118257 23.902 118392 16

Page 1

Dart Aerospace Ltd

| | n . | | | | | | | | | | | |
|----------|------|-------------------|-----------------------------|------------------------------|------------------------|-------------------------------------|--------------------------|-----------|--------------|--|--|--|
| W/O: | | 6 ft 155 m | WO | RK ORDER CHANGE | S | | | | | | | |
| DATE | STEP | PRO | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | | | | | |
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| | | | | | | | | | | | | |
| Part No: | | PAR #: | Fault Categ | ory: | NCR: Yes No DQA: Date: | | | | | | | |
| | R | esolution: | Disposition | : | QA: N/C C | losed: | | Date: _ | | | | |
| NCR: | | | WORK ORDE | R NON-CONFORMA | NCE (NCF | 3) | | | | | | |
| DATE | STEP | Description of NC | Corrective Action Section B | | | Verifi | cation | Approval | Approval | | | |
| DATE | SILF | Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | ion C | Chief Eng | QC Inspector | | | |
| | | | | | | | | | | | | |
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| | | 34 | | | | | | | | | | |
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| | | Talk 1 | | | | | | | | | | |
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NOTE: Date & initial all entries

| DART AEROSPACE LTD | Work Order: 7 | 3796 |
|-------------------------------|---------------|-------------|
| Description: Cap | Part Number: | D3183-9 |
| Inspection Dwg: D3183 Rev: C1 | | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

| | | X First Arti | cle | Prot | otype | |
|----------------------|-----------|---------------------|--------|--------|-------------------------|----------|
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
| Ø0.830 | +/-0.005 | -8305 | / | | 2 | |
| Ø0.720 | +/-0.002 | 0721 | - | | | |
| Ø0.747 | +/-0.001 | 0.748 | | | | |
| R0.010 | +/-0.010 | Roje | / | | | |
| R0.031 | +/-0.010 | R.030 | | | | |
| 0.199 | +/-0.001 | 1185 | // | | | |
| 0.276 | +/-0.010 | 274 | // | | | |
| 0.039 | +/-0.010 | -040 | | | | |
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| Measured by: | Audited by: | and | Prototype Approval: | N/A |
|--------------|-------------|----------|---------------------|-----|
| Date: UTS | Date: | 11/00/11 | Date: | N/A |

| Rev | Date | Change | Revised by App | roved |
|-----|----------|-----------------------------|----------------|-------|
| A | 04.04.20 | New Issue (P/O D3183-045) | KJ/RF | 1 |
| В | 06.03.09 | Dimension Ø0.830 was Ø0.850 | KJ/JLM XIL | |





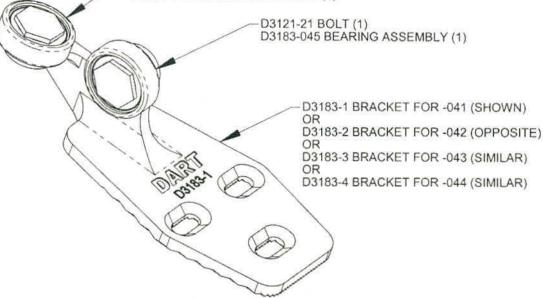
| DESIG | DRAWN BY | | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | |
|-------|----------|------------------|---|--|--|
| CHECK | APPROVED | DRAWING NO. | REV. C SHEET 1 OF 4 | | |
| DATE | 04.02.17 | BRACKET ASSEMBLY | SCALE 1:1 | | |
| Α | 03.01.24 | NEW ISSUE | | | |

RELEASED O4 03 01 APD

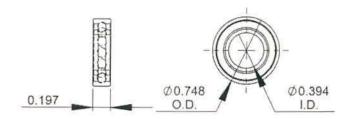
DEO ATTACHED

| 0.0000117-403 | 04.02.17 | BRACKET ASSEMBLY | 1:1 |
|---------------|---------------|--------------------------------|-----|
| А | 03.01.24 | NEW ISSUE | |
| В | 03.06.17 | REMOVE BEARING; 1.012 WS 0.882 | |
| С | ,04.02.17 | ADD -045/-9; 0.182 WAS 0.431 | |
| CI | 1 34 04 11.09 | 0.830 1145 0.850 | |

D3121-21 BOLT (1) D3183-045 BEARING ASSEMBLY (1)

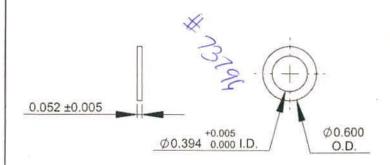


D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING: SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

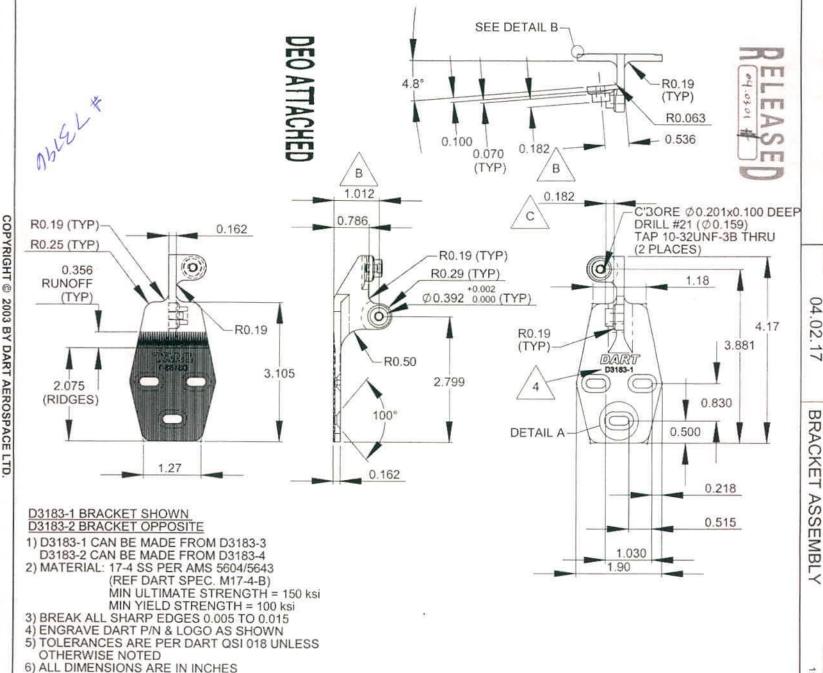
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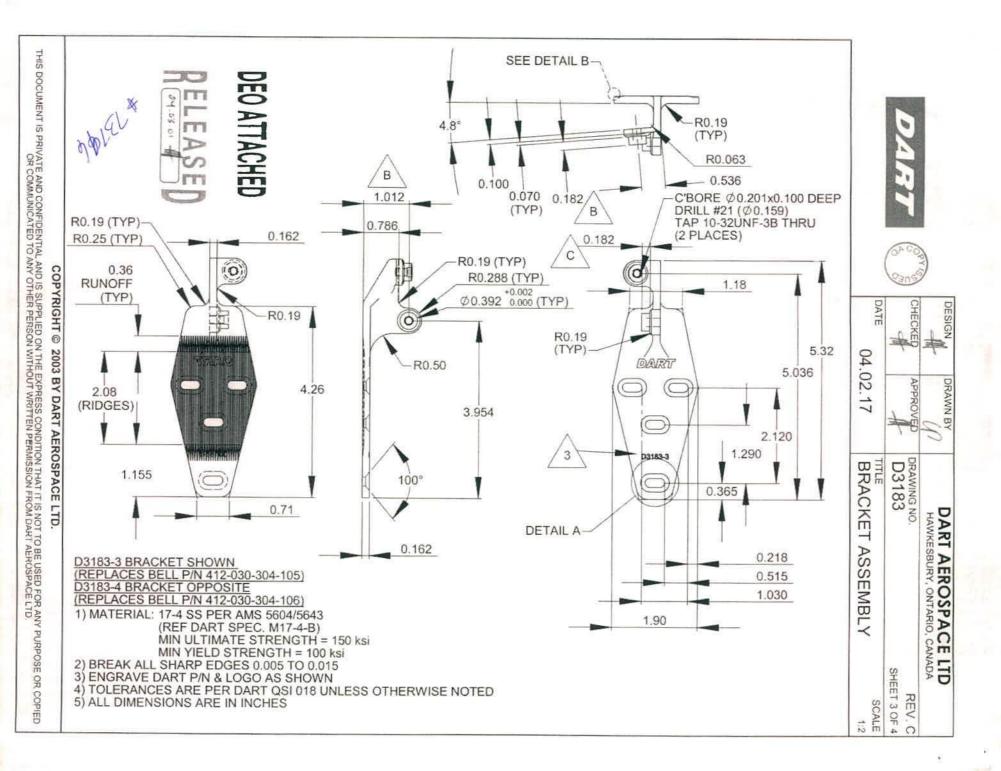
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA

SHEET 2 OF 4

SCALE



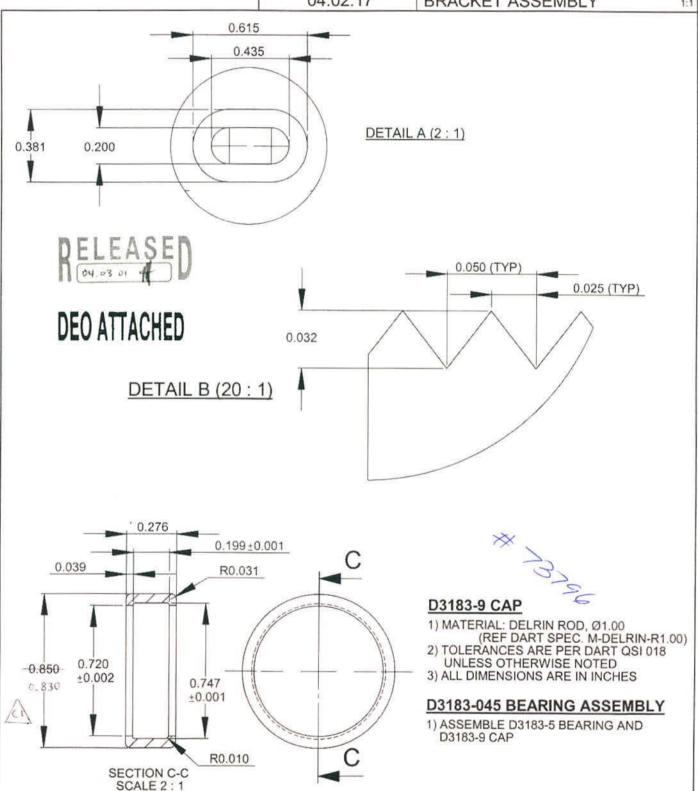
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| DESIGN | DRAWN BY | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | |
|----------|----------|--|--------------|--|
| CHECKED | APPROVED | D3183 | REV. C | |
| 04.02.17 | | BRACKET ASSEMBLY | SCALE 1:1 | |



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| DRAWING D3183 | | TITLE BRACE | KET ASSEMBLY | REV.C1 | DART AEROSPAC ENGINEERING O | | SHEET NO. SHEET 1 OF 1 | SCALE |
|------------------|-------|----------------|--------------|----------|--------------------------------|---------------|---------------------------|-------|
| DRAWN | qo |) | CHECKED | 丛 | MFG. APPR. | APPROVED AN | DE APPR. | |
| DATE | 10.05 | .14 | DATE | 10.06.30 | DATE (8.06.30 | DATE 10/06/30 | DATE 10/06/30 | |

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT:

Cr = 1720 N (386 lb) MIN [DYNAMIC]

Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012



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